

ABSTRACT

The resource sharing system according to the present invention dynamically adjusts
5 the priorities at which requests from applications in different request classes (or classes of
service) for a shared resource, are processed. The dynamic priority of a request class is based
in part on the average resource allocation to requests in this request class, and in part on
settings for the minimum and maximum allocations to the request class. The average resource
allocation is the proportion of time the shared resource has been assigned to requests of this
10 class relative to other classes. The dynamic adjustment of priorities uses "sliding constraints"
whereby the priorities are caused to "slide" with the average resource allocation, and the
priority imposes a constraint on when the requests of a resource class can be satisfied:
namely, when there are no other requests from higher-priority request classes waiting for the
resource.

FOI 2004-0824